

feed themselves, in fact they do it so well that I have to plug the pitchers of my *Sarracenias* to prevent them from getting dead spots caused by an over-abundance of prey. Third, the plants develop better color, flower more and generally set more seed.

There are of course same problems associated with growing outdoors. I've already mentioned increased water consumption, but the rental or purchase of an R.O. unit will greatly reduce the cost.

The other potentially serious problem is contact with insect pests. I will occasionally get attacks of aphids or mealy bugs, but a light spray with a dilute Diazinon® solution will generally clear the problem right up. This treatment must be used carefully since not all plants will tolerate the dose of chemicals. An ideal alternate solution is the use of biological controls. The best predator I found is the larvae of the green lacewing. The eggs may be purchased from most large nurseries or seed mail order companies. Upon hatching, the larvae set out to devour every small insect they can find. They will clear up an aphid infestation in no time flat. The other pest I frequently encounter is moth larvae. These usually stay hidden by day, but by night they appear like magic to consume your most prized specimens. Fortunately they are easily controlled with any one of a number of preparations containing *Bacillus thurgiensis*, a bacteria that will quickly kill the caterpillar without harming the plant.

During suitable times of the year, such as once nights stay above 50°F/10°C, I place all my *Nepenthes* and tropical *Utricularia* outdoors. They stay out until fall and then I move the *Utrics.* and lowland *Nepenthes* back in. The highland species stay out year round since they like the cool winter temperatures better. In addition to moving the above species, I move any other plants likely to be damaged if a very heavy or frost of long duration is predicted. I nightly bring the trays in and return them outdoors each morning.

After growing CP's out doors for several years, I have found very little difference between my plants and greenhouse plants, except my plants are more tolerant over a wider range of growing conditions. While on the subject of greenhouse plants, keep in mind that greenhouse plants should never be placed outdoors without a suitable period of hardening off. If not given this time to adapt you may lose your plants.

One of these days I hope to be able to set up a greenhouse, although when I do I am sure I will have more trouble adapting than my plants do. But for now I think I will just sit back and enjoy my plants.

A Weekend At The Bruce Peninsula

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The Bruce Peninsula is that long Peninsula of the Canadian Province of Ontario that lies between Lake Huron and the Georgian Bay. This area offers different outdoor activities for all kinds of outdoorsmen, and one of these of course is botany. The primary CP habitat here is the alkaline marl fen.

Gary Thieme and I were bogging this area for a weekend and found two locations of *Pinguicula vulgaris* and three locations of *Drosera linearis*. None of these locations were mentioned in a Brochure by the Federation of Ontario Naturalists that monitors two other locations. In one fen we found four species of CP growing together on a marl flat-*P. vulgaris*, *D. rotundifolia*, *D. linearis*, *S. purpurea*. Unfortunately, it would not have made a good photograph. One fen had a colony of hundreds of *P. vulgaris* plants, along with a neighboring colony of *D. linearis*.

The Bruce Peninsula is also known for orchids of which some grow in fens. We found the striking ramshead orchid growing in the moss of a cedar hummock of a large open fen. Unfortunately we were about a week early for full bloom. The yellow lady slipper is common on the peninsula and can be spotted easily from the road. Grass pink and rose pogonia also grow in fens.

The Canadian Government is in the process of preserving this natural area by buying up private land of the northern third of the peninsula for what is to be called the Bruce Peninsula National Park.

Related References

CPN 9:16-18, 1980

CPN 11:19-20 & 27, 1982

General References

Schnell D. E. 1976 Carnivorous Plants of the United States and Canada. John F. Blair Publisher, Winston-Salem, NC.

Johnson, Charles W. 1985 Bogs of the Northeast. University Press of New England

*Photos by
author.*



P. vulgaris and *S. purpurea* on marl flat.



3 species of CP at base of hummock—*S. purpurea* seedling, *P. vulgaris*, *D. linearis*.



Author examining hummock on a watery marl flat. Photo by Gary Thieme.



Rocky shoreline habitat of *P. vulgaris* near Tobermory, Ontario, Canada.



P. vulgaris with numerous small insects near Tobermory, Ontario.



P. vulgaris massing in the cracks of a slab of limestone near Tobermory, Ontario.